

## CLAIMS

- 1 1. A mail piece tracking system including:
  - 2 A. one or more servers for linking mail piece delivery status information with
  - 3 user identifiers and producing listings of the delivery status information for
  - 4 mail pieces directed to the respective users; and
  - 5 B. one or more browsers or client executables through which the respective users
  - 6 associated with the user identifiers access the delivery status information.
- 1 2. The mail piece tracking and tracing system of claim 1 wherein the one or more serv-  
2 ers
  - 3 a. further associate with the delivery status information for a given mail piece a
  - 4 message from the mail piece sender, and
  - 5 b. include a link to the message in the listing of the delivery status information.
- 1 3. The mail piece tracking and tracing system of claim 1 wherein the one or more serv-  
2 ers
  - 3 a. further associate with the delivery status information for a given mail piece
  - 4 related transaction information, and
  - 5 b. include a link to the transaction information in the listing of the delivery status
  - 6 information.
- 1 4. The mail piece tracking and tracing system of claim 1 wherein the one or more serv-  
2 ers
  - 3 a. further associate information relating to the contents of the mail piece with the
  - 4 delivery status information, and
  - 5 b. include the information relating to the contents in a listing of the mail piece
  - 6 delivery status information.
- 1 5. The mail piece tracking and tracing system of claim 1 wherein the one or more serv-  
2 ers includes in the mail piece delivery status information

- 3           i.       a sender identifier,
  - 4           ii.     a mail type identifier, and
  - 5           iii.    a delivery service identifier.
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- 1   6. The mail piece tracking and tracing system of claim 5 wherein the one or more serv-  
2     ers further includes in the mail piece delivery status information related messages  
3     from the sender and the delivery service.
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- 1   7. The mail piece tracking and tracing system of claim 5 wherein the one or more serv-  
2     ers further includes in the mail piece delivery status information links to on-line in-  
3     formation provided by or associated with the sender.
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- 1   8. A method for tracking and tracing mail pieces including the steps of:  
2       A. associating respective users with user identifiers;  
3       B. associating with the identified users mail pieces directed to or sent by the re-  
4       spective users;  
5       C. linking mail piece delivery status information relating to the respective mail  
6       pieces to the respective user identifiers;  
7       D. providing to a given user a listing of the respective mail pieces and the associ-  
8       ated mail piece delivery status information that is linked to the user identifier  
9       that corresponds to the given user.
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- 1   9. The method of tracking and tracing mail pieces of claim 8 wherein  
2       a. the step of linking mail piece delivery status information to the user identifiers  
3       includes updating the information, and  
4       b. the step of providing a listing of mail piece delivery status information in-  
5       cludes providing in the list the updated information.
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- 1   10. The method of tracking and tracing mail pieces of claim 8 wherein the step of linking  
2     mail piece delivery status information with the user identifiers includes associating  
3     therewith information that identifies the senders.

- 1 11. The method of tracking and tracing mail pieces of claim 10 wherein the step of link-  
2 ing mail piece delivery status information with the user identifiers includes associat-  
3 ing therewith messages from the respective senders.
- 1 12. The method of tracking and tracing mail pieces of claim 8 wherein the step of linking  
2 mail piece delivery status information with the user identifiers includes associating  
3 therewith information that identifies the respective mail piece delivery services.
- 1 13. The method of tracking and tracing mail pieces of claim 11 wherein the step of link-  
2 ing mail piece delivery status information to the user identifiers includes associating  
3 therewith messages from the respective delivery services.
- 1 14. The method of tracking and tracing mail pieces of claim 8 wherein the step of pro-  
2 viding a listing includes providing a graphical interface connected to notify the user  
3 that corresponds to a given user identifier of the delivery status of mail pieces ad-  
4 dressed to the user.
- 1 15. The method of tracking and tracing mail pieces of claim 14 in which the interface is  
2 configured to display icons indicating different types of mail pieces addressed to the  
3 user.
- 1 16. The method of tracking and tracing mail pieces of claim 14 in which the interface is  
2 configured to display delivery dates associated with the mail pieces.
- 1 17. The method of tracking and tracing mail pieces of claim 16 in which the interface is  
2 configured to display the date a given the mail piece was logged into a postal delivery  
3 service.

1 18. The method of tracking and tracing mail pieces of claim 16 in which the interface is  
2 configured to display the date on which delivery of a given mail piece is expected to  
3 occur.

1 19. The method of tracking and tracing mail pieces of claim 16 in which the interface is  
2 configured to display the date on which delivery of given mail piece was made.

1 20. The method of tracking and tracing mail pieces of claim 14 in which the interface is  
2 configured to display information concerning the source of a given mail piece..

1 21. The method of tracking and tracing mail pieces of claim 14 in which the interface is  
2 configured to provide information concerning the contents of a given mail piece.

1 22. The method of tracking and tracing mail pieces of claim 14 in which the interface is  
2 configured to provide an image of at least a portion of the contents of a given mail  
3 piece.

1 23. The method of tracking and tracing mail pieces of claim 14 in which the interface is  
2 configured to provide an image of information associated with a given mail piece.

1 24. The method of tracking and tracing mail pieces of claim 23 in which the interface is  
2 configured to provide one or more messages associated with a given mail piece.

1 25. The method of tracking and tracing mail pieces of claim 14 in which the interface is  
2 configured to provide one or more links to information provided by a sender of a  
3 given mail piece.

- 1 26. The method of tracking and tracing mail pieces of claim 25 wherein the information  
2 provided by the sender includes one or more of transaction history, account balance,  
3 and payment option information.
- 1 27. Computer-readable memory comprising computer program instructions for use in  
2 providing mail piece tracking and tracing, the instructions when executed causing:  
3 A. one or more servers to link mail piece delivery status information with user  
4 identifiers and produce listings of the delivery status information for mail  
5 pieces directed to the respective users; and  
6 B. one or more browsers to provide access to the delivery status information  
7 linked to a given user identifier.
- 1 28. The computer-readable memory of claim 27 further including computer program in-  
2 structions that when executed cause the one or more servers to  
3 a. further associate with the delivery status information for a given mail piece a  
4 message from the mail piece sender, and  
5 b. include a link to the message in the listing of the delivery status information.
- 1 29. The computer-readable memory of claim 27 further including computer program in-  
2 structions that when executed cause the one or more servers to  
3 a. further associate with the delivery status information for a given mail piece  
4 related transaction information, and  
5 b. include a link to the transaction information in the listing of the delivery status  
6 information.
- 1 30. The computer-readable memory of claim 27 further including computer program in-  
2 structions that when executed cause the one or more servers to  
3 a. further associate information relating to the contents of the mail piece with the  
4 delivery status information, and  
5 b. include the information relating to the contents in a listing of the mail piece  
6 delivery status information.

1 31. The computer-readable memory of claim 27 further including computer program in-  
2 structions that when executed cause the one or more servers to include in the mail  
3 piece delivery status information

- 4 a. a sender identifier,  
5 b. a mail type identifier, and  
6 c. a delivery service identifier.

1 32. The computer-readable memory of claim 31 further including computer program in-  
2 structions that when executed cause the one or more servers to include in the mail  
3 piece delivery status information related messages from the sender and the delivery  
4 service.

1 33. The computer-readable memory of claim 31 further including computer program in-  
2 structions that when executed cause the one or more servers to include in the mail  
3 piece delivery status information links to on-line information provided by or associ-  
4 ated with the sender.

1 34. A method of operating a computer system, the method including the steps of:  
2 A. associating a given user session with a user identifier;  
3 B. retaining messages relating to the status of the session at a server and includ-  
4 ing in each message a message sequence number and an attribute that is asso-  
5 ciated with the user identifier; and  
6 C. using the messages to continue the session from a point at which the session  
7 last communicated with the server, in response to the user identifier being pre-  
8 sented at a node that communicates with the server.

1 35. The method of claim 34 further including a step of maintaining an index of the mes-  
2 sages, the index being sorted by the attribute that is associated with the user identifier.

1 36. The method of claim 35 further including

- 2 i. a step of communicating through the session and providing information relat-
- 3 ing to a mailing label;
- 4 ii. in the step of retaining messages retaining messages that include the informa-
- 5 tion relating to the mailing label;
- 6 iii. in the step of continuing the session presenting the retained information relat-
- 7 ing to the mailing label; and
- 8 iv. a step of ending the session by printing the mailing label in accordance with
- 9 the retained information.

1 37. The method of claim 36 further including

- 2 i. in the step of communicating through the session providing information re-
- 3 lating to postage for a mail piece;
- 4 ii. in the step of retaining messages retaining messages that include the informa-
- 5 tion relating to the postage;
- 6 iii. in the step of continuing the session presenting the retained information relat-
- 7 ing to the postage; and
- 8 vii. in the step of ending the session printing the postage in accordance with the
- 9 retained information.

1 38. The method of claim 35 further including

- 2 a. a step of communicating through the session and providing information relating to
- 3 postage for a mail piece;
- 4 b. in the step of retaining messages retaining messages that include the information
- 5 relating to the postage;
- 6 c. in the step of continuing the session presenting the retained information relating to
- 7 the postage; and
- 8 d. a step of ending the session by printing the postage in accordance with the re-
- 9 tained information.

- 1 39. A method of operating a computer network including the steps of:
- 2 A. associating a user session with a user identifier that is presented to gain access to
- 3 information maintained by the network from a first node that communicates with
- 4 the network;
- 5 B. retaining a queue of messages relating to the user session and associating the
- 6 queue with the user identifier; and
- 7 C. in response to the user identifier being later presented at the first node or a second
- 8 node that communicates over the network, continuing the user session at the first
- 9 or second node by using the messages to present the session at the point at which
- 10 the session last communicated with the server.

- 1 40. The method of claim 36 wherein the step of retaining a queue of messages includes
- 2 indexing the messages by the user identifier.

- 1 41. The method of claim 37 wherein the step of retaining a queue of messages further
- 2 includes maintaining the queue at each of a plurality of interconnected nodes, a given one
- 3 of the interconnected nodes at which the user identifier is provided presenting the user
- 4 session at the point at which the session last communicated with the server.

- 1 42. The method of claim 38 further including conducting the user session by communi-
- 2 cating over the network using a browser or a client executable.

- 1 43. The method of claim 37 wherein the step of presenting the user identifier includes
- 2 providing a machine-readable code to a scanner that communicates with the node.

- 1 44. A method of operating a postal service computer system, the method including the
- 2 steps of:

- 3 A. associating a given user postal mailing label session with a user identifier;



- 4 B. retaining messages relating to the status of the session at a server and including in  
5 each message a message sequence number and an attribute that is associated with  
6 the user identifier, the messages further including mailing label information pro-  
7 vided through the session; and  
8 C. using the messages to continue the session from a point at which the session last  
9 communicated with the server by presenting the mailing label information pro-  
10 vided through the session, in response to the user identifier being presented at a  
11 node that communicates with the server.

1 45. The method of claim 44 further including a step of maintaining an index of the mes-  
2 sages, the index being sorted by the attribute that is associated with the user identifier.

1 46. The method of claim 45 further including the step of ending the continued session by  
2 printing the mailing label in accordance with the retained information.

- 1 47. The method of claim 46 further including  
2 a. in the step of retaining messages retaining messages that include the information re-  
3 lating to postage;  
4 b. in the step of continuing the session presenting the retained information relating to the  
5 postage; and  
6 c. in the step of ending the session printing the postage in accordance with the retained  
7 information.